

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

Claims 1-6 (Cancelled).

7. (Currently Amended) An underlayer film for copper, disposed on a substrate, wherein

~~the film is formed such that a~~ $(R_1R_2)P-(R)_n-Si$ group ~~bonds~~ of the underlayer film is bonded to the substrate via an Si-O bond,

R_1 and R_2 each represent an alkyl group,

R represents a divalent linear organic group selected from the group consisting of an alkylene group, an aromatic ring, and an alkylene group including an aromatic ring, and n is an integer from 1 to 6.

8. (Currently Amended) An underlayer film for copper according to claim 7, wherein the film is formed by a method including bringing an underlayer film-forming material for copper, including a compound represented by the following formula [I], into contact with a surface of a substrate,



wherein

at least one of X_1 , X_2 , and X_3 represents a hydrolysable group

R_1 and R_2 each represent an alkyl group;

R represents a divalent linear organic group selected from the group consisting of an alkylene group, an aromatic ring, and an alkylene group including an aromatic ring; and n represents an integer from 1 to 6.

9. (Currently Amended) A semiconductor device comprising:

a substrate;

an underlayer film for copper arranged on the substrate; and

a copper wiring film, ~~mainly copper, and~~ arranged on the underlayer film for copper,

wherein

~~the underlayer film for copper is formed so that an~~ $(R_1R_2)P-(R)_n-Si$ group ~~bonds~~ of the underlayer film is bonded to a substrate via an Si-O bond,

R_1 and R_2 each represent an alkyl group;

R represents a divalent linear organic group selected from the group consisting of an alkylene group, an aromatic ring, and an alkylene group including an aromatic ring; and n is an integer from 1 to 6.